

W5YI

National Volunteer Examiner Coordinator

REPORT

Up to the minute news from the world of amateur radio, personal computing and emerging electronics. While no guarantee is made, information is from sources we believe to be reliable. May be reproduced providing credit is given to The W5YI Report.

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June 1, 1989

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MORE PROPOSALS RECEIVED BY FCC!

The following three proposals have been received by the FCC's Private Radio Bureau and are being treated as **Petitions for Rulemaking**. All suggest de-emphasizing the Morse code as a licensing requirement.

(1.) Technician class, **Larry Ballentine, N5BZB**, of Bryant, Arkansas, wants to replace the amateur radio Morse code speed standards with a *code recognition requirement* "...to keep the traditions of amateur radio intact" ...while "eliminating the objection to code speed reception."

"In place of testing for speed by aural receiving and a question session later, I propose that a written test be given where either the printed dots-and-dashes be matched up with the proper letters, numbers, and pro-signs ...or where the printed letters, numbers and pro-signs must be followed by the applicant writing the proper dot-and-dash sequence. In such a test, hearing or physical impairments, and mental blocks will be eliminated. Since such a test does not require speed, I would propose that a 90% score would be passing..."

Apparently Ballantine wants his code recognition procedure to extend to all amateur classes and to all frequencies - not just those in the VHF and higher frequency spectrum. He contends "This would satisfy the international requirement below 30 MHz [that] a person have a knowledge of code..."

While it is true that no speed guidelines exist in the *International Radio Regulations*; Article 32, Section 1, §3.(1) clearly require that an amateur "...prove that he is able to ...receive correctly by ear, texts in Morse code signals. The administrations may, however, waive this requirement in the case of stations making use exclusively of frequencies above 30 MHz."

Ballantine previously petitioned for the complete elimination of Morse code proficiency for all license classes or failing that, separate the code requirement into a sub-class of license. "I believe that a person should not be excluded from the multitude of other forms of amateur radio on the basis of ability in just one area."

(2.) **Dennis/WB7VUM** and **Linda/WA7ZQV Welch** of Burke, Virginia, feel "...growth in the Amateur radio community, especially in the younger segment of the population" is essential. They contend the code is a "barrier to entry" rather than a filter which provides "disciplined operators and operations." The Welch's further maintain "...today's technology can easily produce Morse transmission and reception."

"Disciplined operators result from good training programs and operating experience; no other method has proven satisfactory in military, commercial and volunteer organizations"

They propose:

(a.) No-code Novice entry to the entire 220 MHz

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VHF ham band.

(b.) Technicians passing 5 wpm code and current written testing would obtain all VHF bands ...plus 10 and 80 meter HF operation.

(c.) The General class license would require 10 wpm code and current written testing. Technicians who successfully complete two years of HF net operation, however, would also be eligible for the General class providing they participate in at least six hours of net operation per month which must be MARS (Military Affiliate Radio System) or ARRL verified.

(d.) Advanced class applicants would have to pass a 15 wpm code in addition to the present theory examination.

(e.) No changes were suggested for the Extra Class.

(3.) The proposal of **Bill Welsh, W6DDB**, (Extra Class/Burbank, California) is the most imaginative and creative of all! Welsh says he is a code enthusiast "...and most of my last 40 years on the amateur bands have been completely devoid of voice contacts." He says code testing is presently required internationally so amateurs will be able to recognize distress, safety and other critical communications.

"When the *Global Maritime Distress and Safety System* is implemented during 1993, and becomes mandatory in 1999, the reason for requiring prospective amateurs to pass code tests will be eliminated. ...During the time that code is being phased out of the Maritime Service, it should be phased out as a test requirement for every type of amateur radio license. This time frame should be used to change out test requirements in ways that will guarantee that future licensees will have proven operating capabilities. The existing license structure requires drastic revision to meet the present needs of our Amateur Radio Service."

Welsh's innovative proposals are completely different from any that we have seen:

(a.) "Our future amateur radio operators' initial license should ...authorize any desired mode of operation. These [five] modes are code, facsimile/pulse, teletype, television and voice."

(b.) "...if an aspiring amateur is initially interested in voice operation, his/her examination should consist of a written test and satisfactory on-the-air demonstrations of the candidate's knowledge of correct (hf/vhf, fm/ssb) voice operating procedures."

(c.) "...basic [test] questions should be supplemented with questions about FCC regulations, theory and operating procedures that are all directly related to the desired initial operating emission/mode privilege."

(d.) "...additional mode privileges can be earned by passing written and on-the-air operating tests that are directly related to the desired additional emission/mode privilege being sought."

(e.) "Existing code, voice, sstv, teletype and similar band segments should be retained until/unless activity indicates that reapportionments are advisable. Current license class, Novice through Extra, band segments should be eliminated."

(f.) "In addition to earning additional operating privileges when one passes a mode upgrade test, she/he should be granted additional bands. As an example, the initial (one mode) license could authorize the use of that mode in assigned segments of the 160, 17 and 12 meter bands. The two-mode license (any two modes) could authorize the use of those two modes in assigned segments of the 80, 30 and 6 meter bands, in addition to the 160, 17 and 12 meter bands. Similarly, the three-mode license could authorize the use of all three modes in assigned segments of the 160, 80, 40, 30, 17, 12, 6, 2 and 1 1/4-up bands. The four-mode license could add 10 and 15 meter privileges, and the five-mode license could add 20 meter operating privileges. In other words, each time an amateur passes a mode upgrade test, she/he expands operating privileges on the bands she/he was already authorized to use, and gains an additional band (or bands) in which those modes may be used."

(g.) "The current Novice through Extra class licenses should be phased out. Each current Extra class licensee should receive a new license with all mode endorsements. Current Advanced and General licensees should receive new licenses with all but the facsimile/pulse endorsement. Present Technician and Novice licensees should receive two mode licenses authorizing code and voice operation."

(h.) "The present Group A (Extra), Group B (Advanced), Group C (General and Technician) and Group D (Novice) types of call signs could be used with 5, 4, 3/2 and 1 mode licenses."

(i.) "The existing VEC program offers opportunities to implement on-the-air testing."

Welsh concludes "I will miss the code as a licensing requirement for all amateurs. I have had many students develop a preference for code operation after initially hating (and fearing) code. I

1 Fact	10 or more (Qty)
2.00	1.00 postage paid
3.00	2.00 postage paid
4.00	3.00 postage paid
5.00	4.00 postage paid

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believe the licensing changes proposed are far superior to the band approach formulated by the ARRL's No-Code Committee. This system would allow each applicant to be examined for the specific mode she/he wants to operate. This arrangement would encourage rapid upgrading. Existing amateurs would lose some privileges ...but gain others."

The FCC has emphasized that amateurs should file their proposals directly with the Secretary of the FCC rather than the Personal Radio Bureau or their Personal Radio Branch.

NEW §PART 97 RULES TO BE RELEASED!

The FCC Commissioners are set to approve the final version of the §Part 97 rewrite on Tuesday, May 31st - just a few days before the ARRL "Diamond Jubilee" National Convention being held here in the Dallas area. **Johnny Johnston, W3BE**, Chief of the FCC's Personal Radio Branch is scheduled to discuss the new Amateur Radio rules for the first time at Saturday's FCC Forum. Since our deadline just prior to May 31st, we have no way of knowing what changes were made over the NPRM which was adopted on March 24, 1988.

The *Notice of Proposed Rulemaking* did suggest several changes. Among them:

(1.) Exemption of so-called swap nets from the business communications prohibition.

(2.) Official policies on how amateur stations may be operated in emergencies and in support of public gatherings.

(3.) Broader powers to the FCC concerning imposition of quiet hours.

(4.) Nine new emission designators - CW, MCW (modulated tone), Phone, Image, RTTY, Data, Pulse, SS (Spread Spectrum) and Test - would replace over a thousand ITU recognized terms.

(5.) New Rules were to be reorganized into new headings: *Subpart A* - General Provisions, *Subpart B* - Fundamental Purposes, *Subpart C* - Station Operation Standards, *Subpart D* - Special Operations, *Subpart E* - Technical Standards, *Subpart F* - Qualifying Examination Systems. Four Appendices: 1. FCC Regulated Areas, 2. VEC Regions, 3. Glossary of Terms and 4. Frequency sharing requirements were also to be added.

(6.) Morse code examinations need not contain every letter, numeral and specified punctuation and prosign.

We called Johnston this past week and

asked him if there were any major changes made between the *Notice of Proposed Rulemaking* and the *Final Order*. He said there were many, but since the Commissioners had not acted on the document, he could not go into detail.

Apparently resolved, however, is the issue of "quiet hours." The shortest proposed rule actually caused the most controversy. Many commenters pointed out that new §Part 97.221 [*"The FCC may restrict operators as necessary to prevent harmful interference"*] gave the FCC blanket authority to prohibit amateur operation regardless of the cause. We will have to wait until the Order is released to determine how the FCC decided this matter.

Johnston said that pretty near every section of the new §Part 97 had some issue that had to be re-addressed. Another major matter that had to be settled was the matter of broadcasters using ham radio operations for news gathering purposes. The FCC had proposed a four prong test. Amateur radio may be used to convey news information if:

- (1.) the event is unforeseen,
- (2.) the news is directly related to the event,
- (3.) the event involves safety of life and protection of property and...
- (4.) the news cannot be transmitted by any other means. The news media wanted broader powers to utilize amateur operators where needed.

The new §Part 97 will not be available for release to the public for about a month since the new rules must be electronically transferred to ...and released through the *Department of Commerce*. While still shorter than the current §Part 97, the new rules will be considerably longer than first planned by the FCC. A news conference and a press release is scheduled for Tuesday, May 31st. We will be there and will report in depth in our next issue as to what transpired.

I asked Johnston about the status of *PRB-3*, the special call sign proceeding. More than a year ago the FCC proposed to allow amateurs to select secondary call signs of their choice through a private **Special Call Sign Coordinator**. Several organizations have applied to become the SCSC. I was told that the staff had completed their work on the matter and that it was before the Commissioners for a decision. "It is not a high priority item." I asked if there were any ongoing discussions with any group about assuming SCSC duties and I was told that there were none. "FCC action could be

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taken at any time."

I inquired about other amateur radio issues under consideration. "We have a very small staff for rulemaking and have been almost totally engaged in the [§Part 97] rewrite since the first of the year. We have a very backlog of petitions which we have not been able to do the administrative work on. We have ten petitions dealing with no-code alone." Some of the petitions the FCC has received this year include...

W7ASA/Daryl C. Larsen wants to eliminate the Extra Class CW segments.

The **Space Coast Amateur Technical Group** wants a no-code "Apprentice" operator class to replace Novice.

Burt Fisher/K1OIK wants a code-free "Novice/V" operator class.

KZ1Y/Alan Horowitz requests the Canadian type no-code class. (He did not say which one ...the older *Digital certificate*, or the newer proposed entry level.)

W2OZH/James Taylor wants to cut back to only one class of amateur license

KB4PGC/Michael Trahos wants both a "Novice Plus" and a "Technician Plus" operator class.

N5ADK/Clement Bourgeois wants to change the code speed provisions to 5, 10 and 15 words per minute. He also asks that the examination credit certificate be valid for ten years ...allowing additional time (beyond one year) for completing all elements necessary to upgrade.

N5MKK/David K. Stall suggests a no-code "Limited" operator class.

AK0Q/Keith Greiner wants to change the name of the Extra Class license to Master of Communications.

KR7L/Bradley Wells wants to move the 80 meter Novice segment (assigned RM-6594)

WD0FEN/Robert Cross wants to allow Novice operators on 30 meters.

KB6LZW/Dennis Murphy want to allow Novices and Technicians on the 17 meter band.

KB5EKX/Cord Davidson and **KB6LO/Donald Bremmer** asks that packet operations using FM be permitted on the upper part of ten meters.

N6QQQ/Nicholas W. Sayer wants to allow auxiliary operation in the six meter band.

WOLDK/William King and **KA0OCN/George Bednekoff** wants to authorize more emission types.

KB5AQV/Kevin Biekert does not like to listen to the noise that packet makes on the HF bands.

He wants to increase the baud rate so that packet transmission will be shorter in length.

N1BEE/Michael S. Bilow wants to replace the frequency shift limit on VHF and above with band width restrictions.

AA3G/Rolan O. Clark suggests changes in the *Volunteer Examiner System*. He wants a provision that would allow reuse of a specific examination if all available versions have been administered to an applicant. He also requests that all elements of each license class be successfully completed before testing for a higher class of license.

W4TAH/Eric G. Hogberg wants to re-visit the idea of retesting applicants who violate the rules.

KB3KW/Charles Clay wants to make changes in the Amateur Satellite Service which requires station licensees of satellite stations to be holders of the Extra Class license. While any amateur may be the control operator of a space station, only Extra class amateurs may be the licensee. The reason for this is because it is in the Extra Class written test where the required filings and notifications are covered.

N4DMH/Tommy Thurman wants to privatize the entire FCC Gettysburg licensing function.

Another amateur (name/call sign not readily available) wants to declare a moratorium on third party traffic for a year ...maintaining the situation on 20 meters is completely out of control.

LMCC PLAN FOR SPECTRUM SHORTFALLS

RCR, Radio Communications Report, is the newspaper of the mobile communications industry. The May 22nd issue covers the annual meeting of the *Land Mobile Communications Council*.

LMCC president Tom Gerard plans to set up a committee to educate Washington decision-makers about land mobile industry concerns ...and to develop an industry spectrum plan for the 1990's that will address projected spectrum shortfalls. Industry officials view the resignation of FCC Chairman Dennis Patrick and the possible appointments of three new commissioners as an important public relations opportunity to re-educate officials and their staffs about the needs of the land mobile industry.

Remedies under consideration to alleviate anticipated land mobile spectrum shortages include "refarming" various frequency bands, new and more efficient mobile radio technologies and sharing frequencies with UHF television and the government. (The word "refarming" appears threatening.)

NOVICE AMATEUR RADIO COURSE - Complete with 2 cassette Morse code course and illustrated textbook in a binder. Everything you need to know to become a Novice Amateur Radio Operator.

AMECO LICENSE PREPARATION MANUALS - Contain all Amateur Technician/General

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HAMS RECEIVE \$7,500 IN LAWSUIT

In September of 1983, civil lawsuits seeking damages in excess of \$10,000 each were filed by the Saginaw Valley Amateur Radio Association, Inc. (K8DAC) and Dr. Dennis O'Connor (K8DO) against AC8A, WB8INH and WA2SFT in Circuit Court at Saginaw, Michigan. Even though the suit involved radio wave interference, the suit was initiated under the state's nuisance laws. Action against WA2SFT was dropped when he could not be located.

Last month an agreement between the four remaining parties was reached. According to the terms of the mutually agreed upon settlement, a total of \$7,500 will be awarded to SVARA and Dr. O'Connor. Though he may retain his license, AC8A has agreed to relinquish all amateur operating privileges for life. WB8INH has agreed not to operate through any repeater located in Michigan's Saginaw, Midland or Bay Counties.

In an unusual provision, AC8A and WB8INH stipulated that news releases of the settlement terms may contain only their amateur radio calls ...and not their names. The 1989 *Radio Amateur Callbook* lists AC8A as Melvin C. Wilton of Saginaw and WB8INH as John D. Elston of Flint, Michigan. We tried to reach them, but both have unlisted telephones "at the subscriber's request". The information operator was not able to locate a Gregory G. Tobin/WA2SFT at his Lackawanna, NY, address.

Joseph M. Turner, K8CQF, SVARA Law-suit Coordinator says "We believe this lawsuit, for the first time, demonstrates that amateur radio operators can achieve dramatic results by using existing state nuisance laws to cure severe problems within an amateur community. ...The case involved dozens of filings, motions, and many time delays. It cost several thousand dollars to support and was financed by a fifty percent dues increase..."

•Many Congressmen have contacted the FCC over the last couple of months expressing concern about the loss of 220-222 MHz from the amateur 1 1/4 meter band. Among them are Senators Lugar, Coats, Helms, Rockefeller, Nunn, Fowler, Lowery, Metzenbaum, Gramm, Breaux, Mack and Representatives Lloyd, Pease and Meyers. Presentations have been directed to the FCC's Office of Legislative Affairs, Office of Engineering and Technology ...as well as the Commissioners.

APRIL VE PROGRAM STATISTICS

April No. VEC's	1987 *59	1988 *62	1989 *62
Testing Sessions	354	378	457
VEC	1987	1988	1989
ARRL	45.2%	39.4%	43.5%
W5YI	25.7	35.2	28.0
CAVEC	7.9	7.1	4.2
DeVry	5.1	5.3	4.2
Others	13.9	16.3	20.1
Year-to-Date Sess:	1390	1518	1727
Elements Administ.	7870	8707	9256
VEC	1987	1988	1989
ARRL	54.3%	48.6%	48.0%
W5YI	19.1	29.4	24.7
CAVEC	5.5	6.1	4.7
DeVry	3.4	3.5	3.1
Others	157.7	12.4	19.5
Year-to-Date Elem.	26383	31759	32633
Applicants Tested	4736	5142	5503
VEC	1987	1988	1989
ARRL	52.6%	47.3%	48.3%
W5YI	17.5	35.2	31.4
CAVEC	5.2	5.6	4.4
DeVry	4.1	3.6	3.1
Others	20.6	8.0	12.8
Year-to-Date Tested	17116	18646	19324
April	1987	1988	1989
Pass Rate - All	61.1%	61.9%	62.2%
Pass Rate - W5YI	58.0%	55.8%	61.8%
Applicants/Session	13.4	13.6	12.0
Appl./Session W5YI	9.9	10.4	10.4
Elements/Applicant	1.7	1.7	1.7
Sessions Per VEC	6.0	6.1	7.4
Administrative Errors by VE's/VEC's			
April	1987	1988	1989
Defect. Applications	0.2%	0.6%	1.1%
Late Filed Sessions	0.6%	1.3%	1.1%
Defective Reports	0.6%	2.4%	2.0%

*Note:

The FCC Considers ARRL, W5YI and DeVry to be 13 VEC's each since VEC's are appointed on a regional basis. The 13 regions are: Call Sign districts 1 through 0 plus Alaska (11), Caribbean (12) and Pacific Insular areas (13).

Source: Pers.Rad.Branch/FCC; Wash., D.C.

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• **Video from your microwave oven!** The June '89 issue of Video Review tells how Illinois radio amateur, **David Pacholok, KA9BYI**, built a high-power microwave television transmitter for less than \$200 using parts picked up at a hardware store. The 250 watt rig is powered by a microwave oven. Pacholok, a professional engineer, harnessed the microwave oven energy after noting that it radiated in the same frequency range as amateur television. The frequency is not mentioned, but 915 MHz, shared with industrial, scientific and medical devices, is right in the middle of the 902-928 MHz ham band. The TV frequency modulator sits in the oven. The article advises readers not to try to build a similar transmitter since microwave radiation is extremely lethal.

• **Jim Walsh, W7LVN**, advises that telephone company, US West, has now agreed to **charge residential** (rather than business) rates for all autopatch phone lines going into amateur repeaters. The decision cleared US West's legal department in Portland, Oregon, and all residential service people have been notified.

• An **amateur Soviet delegation** scheduled to attend the recent Dayton Hamvention had their trip called off just two days before the convention. The "official" reason was "lack of funds" ...even though transportation to New York was to have been provided by Aeroflot, the Soviet owned airline and U.S. expenses picked up by IARN, the *International Amateur Radio Network*. IARN is attempting to work another Soviet ham trip to the U.S. for July. This time they will bypass the Moscow bureaucrats.

• The **Eagle 1** (200 mW) and **Eagle II** (2 watt) 445/446 MHz UHF walkie talkies were promoted at the Winter Consumer Electronic Show. They operate in the 420-450 ham band - but SuperCall/Taiwan gave no clue that a U.S. ham license was needed. SuperCall also showed their **6080 KM DX-Deluxe Mobile Telephone** - a 70 watt "cordless" mobile/base station system. The base unit transmits on 49-50 MHz and receives in the two meter band ...while the mobile does the reverse. The claimed range is about 50 miles! Even though the literature does note that the rig is not FCC approved and cannot be used in the United States, it was being sold here. The base unit uses 100V/60 cycle AC and all dimensions are given in inches. These two tidbits extracted from a recent ACE (*Association of Clandestine Radio Enthusiasts*, P.O. Box 46199, Baton Rouge, LA 70895) newsletter.

THE MILITARY AFFILIATE RADIO SYSTEM

You have heard of MARS, but do you really know who they are ...and what they do? Military amateur radio operations were first organized in 1925 as the *Army Amateur Radio System*. Networks of radio stations were established and civilian ham operators were given intensive instruction in Army radio procedures and practices.

By the beginning of World War II, about 8,000 amateur operators had been trained. The AARS came to an abrupt end on December 8, 1941, (day after Pearl Harbor) when the FCC terminated all amateur radio operations in the United States.

In 1948, both the Army and newly created Air Force wanted to maintain a pool of trained radio operators on call for emergencies. The two services developed the **Military Amateur Radio System**. Initially it was restricted to military personnel and reservists. In 1950 the military circuits were once again opened to civilian ham radio operators.

The MARS networks expanded in 1952 and were authorized to transmit semi-official communications and messages originated by the Red Cross. MARS was now recognized as a supplementary communications system to handle Air Force message traffic when established systems were not operational. It was also agreed that MARS stations could also assist in civil defense emergency communications networks as long as this activity did not interfere with their essential military functions.

Meanwhile, it became apparent that the word "amateur" no longer described the operation adequately. Everyone agreed that "affiliate" was a better term, so the name was changed in 1952 without loss of the MARS acronym.

In 1959, MARS was assigned to provide back-up for USAF communications circuits ...and to respond to domestic emergency Air Force plans in the U.S. When the *Air Force Communications Command* became a major command in 1961, it became the single manager of the Air Force MARS program. MARS is now global in scope and falls under Department of Defense sponsorship. It provides emergency communications - local, national, or international - as an adjunct to normal channels. Their work covers crash sites, earthquake areas ...and war zones. A global Air Force Emergency HF

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Network is currently in the planning stages.

In Southeast Asia during the late 1960's, thirty Air Force MARS stations in Vietnam and Thailand where commercial telephone facilities were exceedingly limited, put together 210,000 phone patches to servicemen's families stateside.

MARS played a prominent part in the evacuation of American dependents during the Middle East Crisis of 1967 ...and demonstrated its value again in the Iranian emergency of 1979. MARS operated under emergency conditions when hurricane Elena struck the Gulf Coast in 1985. The first word to reach the U.S. State Department about the major Mexican earthquake came from a Robins AFB, Georgia, MARS station.

MARS stations fall into two categories. The first is the base station located on a military reservation - normally operated by military personnel. The second category are the civilian affiliates ...licensed radio amateur volunteers participating in the *Individual Member* program. They use their own equipment on voice, CW and teletype circuits on government frequencies assigned to MARS use. There are approximately 300 military MARS stations and 3,000 Volunteer Air Force affiliates. There are ten MARS regions worldwide.

At present there are four round-the-clock MARS radio circuits operating from Scott AFB, Illinois, Andrews AFB, Maryland, Travis AFB, California and Rhein-Main AB, Germany. The *Air Force Command Center* is now studying the feasibility of operating 24-hour stations in each MARS region.

(Digested from a feature article in *Air Force Magazine*.)

•The FCC has decided they have had enough and have begun proceedings to strip **Jerry E. Gastil, K6DYD**, of all of his radio licenses. In addition to his own Extra Class ham ticket, he holds two commercial licenses and is the licensee of two amateur club stations. Gastil was fined \$50 in 1985 for operating an unidentified repeater station, and \$750 in 1986 for running an HF pirate broadcast station on 7434 kHz as "Doctor Demento, Voice of the Pacific Northwest" using the unauthorized call sign, KIWI. Last year Gastil was fined \$1,000, placed on three years (FCC supervised) probation and ordered to perform five years community service when he pleaded guilty to intentionally jamming the San Diego FBI radio network. A radio technician by trade, Gastil had been caught in early 1987 by FBI and

FCC officials playing 1960's music on FBI tactical channels. The community service condition was to have been met by providing and maintaining a repeater radio system for the San Diego YMCA.

•**Billie E. Prell, N7FAQ**, of Pasco, Washington, has been fined by the FCC for intentionally jamming a two meter repeater frequency for the sole purpose of disrupting ongoing communications. The intentional interference was observed by members of the Amateur Auxiliary's Local Interference Committee who forwarded the pertinent information to the local FCC office for investigation and enforcement.

•The plea bargain settlement of ham hacker, **Kevin David Mitnick, N6NHG**, will not be honored by the court. Calling him an electronic terrorist, prosecutors charge that Mitnick is as dangerous as a robber with a gun whenever he gets his hands on a computer. The government had reached an arrangement for Mitnick to receive a one year jail sentence in exchange for guilty pleas to computer fraud and illegally possessing MCI telephone access codes. Noting Mitnick's two previous computer related convictions, however, a federal judge said he deserves much more stringent punishment. Mitnick has a long time record. Starting when he was in high school, Mitnick has broke into Defense Department computer systems, sabotaged business computers, harassed the FBI ...and manipulated the phone system to disconnect the lines of Hollywood celebrities. Held without bail, the 25 year old Panorama City, California, radio amateur has been ordered to stand trial and now faces up to 20 years in prison.

•The International Amateur Radio Union has re-elected **Richard L. Baldwin, W1RU**, of Bremen, Maine, to serve as IARU President for a five year term. Baldwin has been IARU president since 1982. He was previously ARRL General Manager. Founded in 1925, the IARU is a federation of national amateur radio organizations representing ham radio in 126 countries. The American Radio Relay League serves as IARU International Secretariat.

•**K2BSA, Boys Scouts of America** will be on the air Aug. 2-8 to demonstrate amateur radio at their 1989 National Jamboree. 34,000 scouts are expected to attend the Fort A.P. Hill, Virginia, Jamboree. All bands will be operated. Most message handling in and out of the Jamboree will be via packet radio. A special QSL is being made available.

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• Both Rae Echols of the **American Radio Association** (5700 Hammonds Ferry Road, Linthicum Heights, Maryland 21090) and William Eney of the **Radio-Electronics Officers Union** (1415 Moylan Road, Panama City Beach, Florida 32407) say they are recruiting ham radio operators to serve as Radio-Electronic Officers aboard commercial American cargo vessels. Both also offer a six month Apprenticeship Program. You must hold a valid 1st or 2nd Class Radio Telegraph license and be a good electronics technician.

• **New products!** ICOM has new micro-sized IC-2SA 2-meter and 3SAT 220-MHz hand holds. Ideal for shirt pockets and handbags. Kenwood is introducing their TM-231-A series of VHF transceivers: TM-231A 2-meters (\$459.95); 35W TM-431A 450-MHz (\$469.95); 10W TM-531A for 1200 MHz (\$569.95) ...and shortly, a 25-watt TM-331A for 220 MHz. Kenwood also has a new TH-75A 2m/70cm Dual Band HT. Both bands can be monitored at the same time! AEA recently announced "The Morse Machine" MM-3 keyer. 8,000 characters can be stored in 20 memories ...and a built-in training system allows random code group practice at a steadily increasing speed. RS-232 computer capability allows copy to be displayed on your screen. (\$189.95) AEA also debuted their FSTV-430 Fast Scan TV Transceiver that connects to the video output of a video camera. Interested in a super all-mode communications receiver? ICOM showed their IC-9000 (100 kHz to 2 GHz!) receiver at Dayton - complete with a 5-inch CRT display which can even receive video broadcasts. (Cost around \$5,000.)

• The **Japan Amateur Radio League, Inc.**, (JARL) invites all amateurs to attend **Ham Fair '89** at the New Shinkan Hall of the International Trade Center in Hamumi, Tokyo from August 25 to 27. The fair will focus on two themes, "Operating New modes During Cycle 22" and "Supporting the Success of JAS-1B" ...Japan's new amateur satellite. Ham Fair is the largest ham gathering in the world ...last year attracting 57,000 visitors from around the globe.

• The **National Amateur Radio Association** is distributing a shareware program called **Super Morse** written by **Lee Murrah, WD5CID**. The program can be used with any IBM or compatible computer. **Super Morse** is organized into four phases of the Morse code learning process (1.) learning the characters, (2.) building speed, (3.) enhancing skills ...and (4.) measuring progress. An

on-screen display permits configuring the sending and word speed. Files are included on disk which simulate actual radio transmissions between amateurs. Cost is free, but there is a \$3.00 postage/handling charge: *NARA, 16541 Redmond Way #232, Redmond, WA 98052. (Tel: 206-232-2579)*

• "The Futurist" - a publication focusing on the future, says that the **Class of 2000** is already in kindergarten. When they graduate, 95% of all jobs will involve generating, processing, retrieving or distributing computerized information. By the year 2010, virtually every job in the country will require skill in information processing technology. They say teachers must be recruited from industry and business rather than university educational programs and be paid higher salaries.

W6AM MUSEUM TO HONOR HAM RADIO

A move is underway to create the **Don Wallace Museum** on a portion of the former "Rhombic Ranch" property of W6AM. A parcel has been acquired by the City of Rancho Palos Verdes, California, for use as a City Park and Museum facility. Inside will be amateur radio memorabilia and displays from the 1920's to the 1990's ...and a complete modern operating radio station.

While the City Park site and the basic Museum facility (shell) are being provided free to the Museum, all building interior improvements, furnishings, displays and electronic systems must be provided by the museum's sponsor -- *The Don Wallace Radio Ranch Foundation, Inc.*

The museum will be built on the original W6AM site, twenty-two miles southwest of downtown Los Angeles. Plans call for exhibits illustrating W6AM's amateur radio operations, his site predecessor *Press Wireless*, and many other users of this world-famous locale. Other exhibits will be scale models of Rhombic, Yagi and dish antennas ...and radio equipment from the 1932 and 1984 Olympic Games. The site will also be the source of West Coast ARRL transmissions complementing W1AW in the east. The museum will have emergency power and be the hub of Peninsula Disaster Communications Services.

The museum was first used by *Press Wireless* for overseas communications reception and utilized the famous huge diamond-shaped Rhombic. *Press Wireless* handled news and military messages

WOULD YOU LIKE TO BECOME A VOLUNTEER EXAMINER?

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"I am a currently licensed Extra Class amateur radio operator and my license is valid for [] years. I do not own a significant amateur radio equipment or have [] years experience in amateur radio operation. I am willing to [] be a [] volunteer examiner for the following signed statement and a [] operator license revoked or suspended. I []

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from 1938 to 1946, including all of World War II. In 1947, pioneer amateur radio operator Don Wallace purchased the entire 126 acre complex from the Vanderlip family, who had leased it to *Press Wireless*. Wallace expanded the antenna farm to include twenty-two Rhombics to all directions of the globe. A complex switching system allowed each antenna to work from either end of the diamond.

Following the death of Don Wallace in 1985, the last of 24 acres were sold by the Wallace estate to a residential developer who is building a luxury home subdivision. The City of Rancho Palos Verdes has taken title to 30,000 square feet of this property as a new City Park devoted exclusively as the setting for a new museum "...devoted to the preservation and perpetuation of the positive influences of Amateur Radio" (...to borrow the words of Mayor Jacki Bacharach)

The developer will construct the 4,500 square foot museum building providing adequate funding is gathered to develop the museum interior, provide the exhibits and equipment ...and finance continuing operations. The ARRL has made a long term financial commitment to the project. The goal of the Foundation is to raise \$300,000 to complete the necessary features. **Barry Goldwater, K7UGA**, is the Foundation's Honorary Chairman.

Contributions (tax deductible) are solicited (from \$25 to \$1,000) from amateurs ...all contributors will receive a handsome certificate suitable for framing. Send to: **The Don Wallace Radio Ranch Foundation, Inc.**, 30930 Hawthorne Blvd., Rancho Palos Verdes, California 90274. By the way, the first "W6AM Kilowatt Club" (\$1,000) donor is noted ham educator, **Gordon West/WB6NOA**.

Food for Thought Department...

USE IT ...OR IT MIGHT BE SOLD!

Auctioning off the Radio Spectrum

The Washington, D.C. based **Heritage Foundation** has published a report entitled "*Raising Revenues with the Auction Option for the Telecommunications Spectrum*" ...or to put it simpler, selling UHF radio frequencies. It makes interesting reading ...particularly since the spectrum they talk about is just above and below the 902-928 MHz ham band. The public interest group makes the following points:

Congress is urgently seeking ways to reduce

the deficit while avoiding measures, like tax increases, that would harm the economy. One idea that meets this criteria is allowing the FCC to auction licenses for unassigned 800/900 MHz radio frequencies to the highest bidder, rather than giving them away as it now does. Legislation now pending in Congress would allow the FCC to sell a limited number of such licenses which could reduce the federal deficit by as much as \$3.4 billion over two years. In addition, and as important, auctioning would make the licensing system far more efficient.

While most of the radio spectrum has been awarded, the FCC regularly makes new frequency assignments due to the occasional reallocation of under-used frequencies and technological advances that make more of the spectrum usable.

The primary issue is how best to assign licenses for these frequencies. Two methods are used at present; "**comparative hearings**" in which the merits and abilities of each competing applicant are weighed ...and "**lotteries**" in which assignments are made by random selection. The first system is slow, costly and cumbersome ...the second elicits an enormous number of applications - as firms and individuals seek to increase their chances of winning licenses. This results in tremendous costs to the FCC, applicants and the public. Under either system, these valuable resources are given away free by the federal government, although licensees generally are able to resell their licenses.

These shortcomings could be solved by providing the FCC with a third option for the assignment of telecommunications licenses: "**auctioning**" licenses to the highest bidder. Licenses could be distributed to those individuals or firms who bid the highest and thus value them most. Not only would this process be quicker than the existing two, but instead of costing the federal government money, it would raise revenues.

George Bush's budget proposal for fiscal 1990 endorsed the auction idea, estimating \$3.4 billion in revenues over two years. A bill specifically to authorize auctions (S.170) has been introduced in the Senate by Senator Phil Gramm, the Texas Republican. This bill would authorize auctions, on an experimental basis, for six currently unassigned megahertz of the spectrum. (849-851, 894-896 and 940-941 MHz.)

The *Heritage Foundation* argues auctioning

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spectrum licenses is a proposal that not only makes good sense, but is also economically sensible. While it would help reduce the overgrown federal deficit, it also would encourage better and more efficient use of the telecommunications spectrum.

The *Communications Act of 1934* provides the FCC with a two-step process for making these frequencies available to users. First, spectrum must be "allocated" to particular uses or services. Thus, portions of the spectrum are set aside for radio/television broadcasts, amateur radio, cellular phones, public safety use (such as police radios), and various other communications services. Second, licenses for specific frequencies within each service are "assigned" to individual users. The rights and duties of each licensee vary considerably from service to service. As a general rule, however, licensees are free to sell their licenses to others. Personal radio spectrum, of course, can not be resold.

While most of the currently usable spectrum has been assigned by the FCC, a sizeable amount of UHF spectrum remains in an unused reserve. Potential users request desired frequencies and the FCC must decide which applicant should receive the license. After decades of the FCC deciding which competing applicant could best serve the public, Congress authorized the Commission in 1982 to select licensees through random lotteries. A specified time window is determined, and after dismissing unqualified applicants, winning applicants simply are chosen by lot in drawings held at FCC headquarters.

The concept of selling government held resources is not new. The *Department of the Interior* has been auctioning oil and gas production leases for over 35 years which has yielded about \$35 billion to the U.S. Treasury. Auctions are also used in a wide variety of other situations, ranging from issuance of Treasury bills ...to the sale of unclaimed property.

Under the terms of S.170, Senator Gramm proposes to authorize the FCC to assign six megahertz (just above and below the 902-928 MHz ham band) to users by employing auctions. The Commission would be barred from selling frequencies already assigned ...or any spectrum allocated to mass media use, public safety, or amateur radio. Payments for licenses would be made in four equal payments ...or if the licensee chose, in a discounted

lump-sum payment. The auction program would automatically expire five years from the date of enactment. Continuation of the program thus would require renewal by Congress.

The *Heritage Foundation* says the auction approach has many advantages:

- (1.) Lower cost for applicants due to simplicity of the process. Fewer applications would be made.
- (2.) A decrease in delays. Comparative hearings and lotteries can take years to complete.
- (3.) Decreased cost and increased revenue to the taxpayer. Processing costs could be 80% to 95% less.

When Senator Gramm first introduced this bill last year, it was estimated that the proposal would generate \$800 million in revenue. This figure was based on a 1985 study by a communications consulting firm, Transcomm, Inc., which estimated that an additional megahertz of spectrum for cellular radio (for the largest thirty markets) would be worth about \$133 million, or about \$800 for six megahertz. The *Congressional Budget Office* estimated that auctions would bring in about \$500 million for the sale of four megahertz.

These estimates, however, are likely much too low. In an analysis published last September, *Kidder, Peabody and Co.* estimated that a cellular frequency is worth about \$70 per each potential customer in urban areas ...and \$20 per potential customer in rural areas. Nationally, this translates into about \$563 million per megahertz ...or \$3.38 billion for the six megahertz in the Gramm bill. [Using the same formula, the 902-928 MHz ham band is worth a whopping \$14.6 billion!]

The \$3.38 billion estimate is in line with prices recently paid by buyers of cellular licenses. In 1986, for instance, *Southwestern Bell* purchased the cellular radio interests of the *Metromedia Company* for about \$450 million per megahertz, suggesting that six megahertz could raise about \$2.7 billion. The market value of these frequencies likely is even higher today, given the skyrocketing value of cellular radio firms in recent years.

James L. Gattuso, Senior Policy Analyst with the *Heritage Foundation*, concludes that using auctions to assign spectrum licenses makes good budget and economic policy.

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